

INDEX TO VOLUME XXV

TEXT

Names of articles are set in capitals and small capitals. Titles of works are set in italics.

ASSOCIATIONS, CONFERENCES, ETC.

American Association for the Advance of Science, 102; American Society of Mammalogists, 318; Cercle Zoologique Congolais, 625; Conference on Outdoor Recreation, 103; Institut de Paleontologie Humain, 208; National Academy of Sciences, 319; New York Zoological Society, 205; Ornithological Societies meetings, 488; Russian Academy of Sciences, 630; Smithsonian Institution, 516; Third Pan American Scientific Congress, p. 98; University of Vienna, 631.

ASTRONOMY

Astronomical exhibit, 421; ECLIPSES, by H. F. Schwarz, 162; Solar eclipse of January 24, 1925, 204.

BIRDS

Bird Department activities, 505; BIRD HUNTING IN CENTRAL PARK, by Ludlow Griscom, 470; BIRD THICKSTER OUTTITLED, by Charles Macnamara, 54; BIRDS IN BOOKS, 508; Caldwell Collection, 499; Callewaert's Collection, 499; COASTAL PRAIRIES OF SOUTHERN TEXAS, THE, by Ludlow Griscom, 70; cormorant, Galapagos, 500; CROWNED EAGLE, OGRE OF AFRICA'S MONKEYS, THE, by James P. Chapin, 459; duck, pink-headed, 498, 625; Dwight Collection, 504; EPSTEIN PANEL, 486; EQUATORIAL VIGNETTES, by Robert C. Murphy, 431; EUROPEAN STARLING AS AN AMERICAN CITIZEN, THE, by F. M. Chapman, 480; flamingo, Andean, 501; gull, Pacific, 504; heath hen, 503; MEETINGS OF ORNITHOLOGICAL SOCIETIES IN THE AMERICAN MUSEUM, 488; NEWS FROM THE STUDY, 498; Old World, 500; other museums, from, 516; parakeet, Australian, 503; penguin, Galapagos, 500; REPORTS FROM THE FIELD, 491; ROOSEVELT MEMORIAL BIRD FOUNTAIN, 487; SNOWY OWL IN ITS NORTHERN HOME, THE, by Alfred M. Bailey, 65; Tate Collection, 500; TRAINING OF A HAWK, THE, by Frank B. Levy 188; WITH MURPHY TO PERU by R. E. Coker, 199.

EXPEDITIONS

Acad. des Sciences to Turgai, Turkestan, 97; Arcturus Expedition, 315; Benson in Panama, 493; Barnum Brown in Southern Asia, Mediterranean, and Greece, 96; Frick to Santa Fe, 627; Mook to Montana, 627; Murphy to Peru and Ecuador, 98, 431; James Simpson-Roosevelt Expedition, 314; Tate in Venezuela, 494; Third Asiatic Expedition, 203, 314, 426, 622, 627; Thompson, Mrs. Wm. Boyce, 207; Thomson to Snake Creek, 627; Vernay-Angola, 206, 623; Watkins on the Rio Maraon, 496; Whitney South Sea, 98, 491.

EXTINCT ANIMALS

Alligator, 407; BYWAYS AND HIGHWAYS IN BURMA, by Barnum Brown, 294; dinosaur egg-shells, 422; fossil mammals from India, 96; from St. Petersburg, Fla., 97; from South America, 96; GLIMPSES OF INDIA, by Barnum Brown, 109; *Indricotherium*, 98; MAMMALS AND BIRDS OF THE CALIFORNIA TAR POOLS, by H. F. Osborn, 527; Mongolian fossils, 627; oldest mammal skulls, 316 and 622; rhinoceros, 522; THROUGH THE LAND OF SHEBA, by Barnum Brown, 602. WHY PALEONTOLOGY? by W. D. Matthew, 166.

FISHES

Book of Fishes, 422; CHINESE FRESH-WATER FISHES, by J. T. Nichols, 346; CRUCIFIX IN THE CATFISH SKULL, by E. W. Gudger, 371; EXPERIENCES OF A FISH COLLECTOR IN BRAZIL, by Edwin C. Starks, 357; fishing cats, 146-55; fishing spiders, 262-74; GIANT GAME FISHES OF SANTA CATALINA, by David Starr Jordan, 338; LUMINOUS FISHES OF THE BANDA SEA, by E. Newton Harvey, 353; new top minnow from British Guiana, 101. Parasitic male fishes, 523.

FLOWERS

REMARKABLE PARTNERSHIP, A, by William M. Savin, 276; SUJAURO DESERT, A, by DeLancey Verplanck, 282.

INSECTS AND SPIDERS

Field Station, 423; luminous spider, 316; NEW INSECT GROUPS IN THE AMERICAN MUSEUM, by F. E. Lutz, 126; yucca moth, 276; SOCIAL WASPS—POLISTES AND VESPA, by William M. Savin, 81; SPIDERS AS FISHERMEN AND HUNTERS, by E. W. Gudger, 261.

LOWER INVERTEBRATES

Bartlett marine collection from Arctic, 101; SENSE OF HEARING IN INVERTEBRATE ANIMALS, THE, by Ulric Dahlgren, 233; INSTANCE WHERE EVOLUTION HAS TURNED BACKWARD, AN, by W. S. Van Name, 241; REEF BUILDERS OF THE TROPIC SEAS, THE, by Roy Waldo Miner, 250; ROTIFER GROUP, THE, by Herman Mueller, 224; WHAT IS A ROTIFER? by F. J. Myers, 211; Worms of the Congo Collection, 318.

MAMMALS

Animal and Birds Act of 1921, 626; Asiatic mammal collection, 100; BAT, THE, by H. E. Anthony, 500; cats as fishermen, 143; Congo game conservation, 625; DOGS OF THE LABRADOR INDIANS, by Frank G. Speck, 58; EXTRACTS FROM THE DIARY OF MARTIN JOHNSON, 571; lion in Europe and Africa, 629; LIVES OF GAME ANIMALS, VOL. I, a review by H. E. Anthony, 579; LIVES OF GAME ANIMALS, VOL. II, by Ernest Thompson Seton, 583; mammal collection of Univ. of Tasmania, 421; MARMOTS OF HANNEGAN PASS, THE, by W. T. Shaw, 169; new handbook No. 61, 629; OLD-TIME RANGE OF THE VIRGINIA DEER, MOOSE, AND ELK, by George Bird Grinnell, 136; Osborn caribou, 627; pronghorn antelope, 628; Queensland fauna, 626; REVIEWS OF RECENT WORK OF AUSTRALIAN MAMMALOGISTS, by H. C. Raven, 618; South African National Park and Sanctuary, 627; AN UNUSUALLY FINE EXAMPLE OF BEAVER INDUSTRY AN, by Ira A. Williams, 593; Vernay-Angola Expedition, 206, 624.

MAN

Algonquins, 87; Archeological research in Asia, 314; Beginnings of intelligence, 424; BORN NATURALIST, THE, by H. F. Osborn, 309; Labrador Indians, 58; Fossil Man in Spain, 102; Foxhall jawbone, 424; HUMPTY DUMPTY OUTDONE, by Ethelyn Nelson, 87; IMPRESSIONS OF GREAT NATURALISTS, by W. K. Gregory, 311; KITISHAN AND THEIR TOTEM POLES, THE, by G. T. Emmons, 33; NIGHT CHANT, THE, (Navajo), by P. E. Goddard, 49; ON THE NEWLY DISCOVERED SOUTH AFRICAN MAN-APE, by Robert Broom, 408. *Pithecanthropus* exhibit, 631; "Pithecus," the word, 423; Punim Calvarium, 318; RECENT STUDIES ON THE SKULL AND BRAIN OF PITHECANTHROPUS, by J. H. McGregor, 544; Tertiary man in England, 102; Von Luschian anatomical collection, 318; WOMEN'S CEREMONY AMONG THE HOPI, A, by Robert H. Lowie, 178; WHALING AMONG THE OLYMPIC PENINSULA INDIANS OF WASHINGTON, by A. B. Reagan, 24.

MUSEUMS

Academy of Natural Sciences, Phila., 518; Carnegie Museum, 519; Cleveland Museum Nat. Hist., 519; Colorado Museum Nat. Hist., 520; Congo Museum at Tervueren, 625; Field Museum, 314; Museum of Comp. Zoology, 518; Museum of Vert. Zoology at Univ. of Cal., 521; Nat. Hist. Museums of Leningrad and Moscow, 630; U. S. Nat. Museum, 517; Yosemite Museum, 103.

NECROLOGY

ERNEST HAROLD BAYNES, by F. A. Lucas, 202; THOMAS L. CASEY, 206; NED HOLLISTER, 99; EDMUND OTIS HOVEY, 102; SANTIAGO ROTH, 96; LOUIS ROBERT SULLIVAN, by Clark Wissler, 419.

REPTILES AND AMPHIBIANS

ANCESTRY OF THE ALLIGATORS, by Charles C. Mook, 407; BIG SNAKES IN CAPTIVITY, by W. Henry Sheak, 394; DEPARTMENT OF REPTILES AND AMPHIBIANS IN THE AMERICAN MUSEUM, by G. Kingsley Noble, 381; GLIMPSES OF THE NEW HALL OF REPTILE AND AMPHIBIAN LIFE, by G. Kingsley Noble, opp. 384; foreign museums, 420; HOOP SNAKE STORY, THE, by Karl P. Schmidt, 76; IGUANAS OF BITTER GUANA CAY, THE, by A. M. Bailey, 390; IN DARIEN JUNGLES, by C. M. Breder, Jr., 324; LIFE OF THE RED SALAMANDER,

THE, by S. C. Bishop, 385; TALE OF "OLD FIRE EYES," THE, by Percy Viosca, Jr., 400; TWO-HEADED SNAKES, by B. T. B. Hyde, 184.

REVIEWS

Bird Islands of Peru, by R. E. Coker, 199, 98 note; *Birds in Books*, 508; *Book of Fishes*, THE, 422; Evolution . . . of the Frog, 426; Endless Caverns of the Shenandoah Valley, 523; IMPRESSIONS OF GREAT NATURALISTS, by W. K. Gregory, 311; LIVES OF GAME ANIMALS, Vol. 1, by H. E. Anthony, 579; *Men of the Old Stone Age*, 425; Punin Calvarium: Craniology, 318.

TREES

COOK FOREST, by Thomas Liggett, 93; Save the Redwoods League, 207.

LIST OF CONTRIBUTORS

ANTHONY, H. E.	560, 579	MILLER, WALDRON DEW	450
BAILEY, A. M.	65, 390	MINER, ROY WALDO	opp. 240, 250
BISHOP, SHERMAN C.	385	MOOK, CHARLES C.	407
BREDER, C. M., JR.	324	MUELLER, HERMAN O.	224
BROOM, ROBERT	409	MURPHY, ROBERT CUSHMAN	431
BROWN, BARNUM	108, 294, 602	MYERS, FRANK J.	211
CHAPIN, JAMES P.	459	NELSON, ETHELYN G.	87
CHAPMAN, FRANK M.	480	NICHOLS, JOHN TREADWELL	346
COKER, R. E.	199	NOBLE, G. KINGSLEY	381
DAHLGREN, ULRIC	233	OSBORN, HENRY FAIRFIELD	3, 309, 527
EMMONS, GEORGE T.	33	RAVEN, H. C.	618
FISHER, G. CLYDE	94	REAGAN, A. B.	24
GODDARD, P. E.	49	SAVIN, WILLIAM M.	81, 276
GREGORY, WILLIAM K.	311	SHAW, WILLIAM T.	169
GRINNELL, GEORGE BIRD	136	SHEAK, W. HENRY	394
GRISCOM, LUDLOW	70, 470	SCHMIDT, KARL PATTERSON	76
GUDGER, E. W.	143, 261, 371	SCHWARZ, H. F.	162
HARVEY, E. NEWTON	353	SPECK, FRANK G.	58
HYDE, B. T. B.	184	STARKS, EDWIN C.	357
JORDAN, DAVID STARR	338	SULLIVAN, LOUIS R.	682
LEVY, FRANK B.	188	SETON, ERNEST THOMPSON	583
LIGGETT, THOMAS	90	VAN NAME, WILLARD G.	241
LOWIE, ROBERT H.	178	VERPLANCK, DE LANCEY	282
LUCAS, FREDERIC A.	202	VIOSCA, PERCY, JR.	400
LUTZ, F. E.	126	WHITLOCK, HERBERT P.	156
MACNAMARA, CHARLES	54	WILLIAMS, IRA A.	593
MATTHEW, W. D.	166, 409	WISSLER CLARK	419

ILLUSTRATIONS

ASTRONOMY

Solar eclipses, 162, 164, 204.

BIRDS

British Birds, Thorburns, 508. Central Park coverts, 472, 474. Cormorant, flightless, 501. Cowbird, 55. Crane, whooping, 75. Dove, 290. Ducks, black, 470; pink-headed, (color plate) opp. 431. Eagle, crowned, 459-65. Flamingo, Andean, 502. Flycatcher, paradise, 463. Gannet, Peruvian, 439. Geese, Canada, 476. Gnat catcher, 289. Guanay, 434. Gull, Pacific, 505. Hawk, 190-98. Oriole, hooded, 293. Owls, 66-67. Penguin, Galapagos, 501. Plover, upland, 515. Shore birds, 440. Starling (color plate) opp. 480. Thrasher, Palmer, 290. Warbler, haunt, 458; yellow, 65-67. Woodpecker, Gila, 291; pileated, 457 and color plate opp. 456. Wren, cactus, 289.

COUNTRIES

AFRICA: Abyssinia, 602-15; Lake Paradise, 572 and duotone insert opp. 578. ASIA: Burma, Byways and Highways, 294-308; jungle, 317. Siwalik Hills, 108-25. NORTH AMERICA: Alaska, 66-69; Arizona, 282-93; Texas, 75; Washington, 170-75. PANAMA: Darien, 324-37; 493. SOUTH AMERICA: Brazil, 357-70; Ecuador and Peru, 431-46; Venezuela, 494.

DIAGRAMS

Ascidian, 246-49. *Australopithecus*, 418. Burmese Tertiary strata, 296. Coral polyps, 254-57. Katydid, 233-37. Starlings' food chart, 283.

EXTINCT ANIMALS

Alligator, 408. Elephants and mastodons of America, (color plate) opp. 3, 3-23; Indian, 108, 120, 121, 125. Rhinoceros of North China, 522.

FISHES

Brazilian, 364-70. Catfish, skulls, 370-80. Chinese fresh-water, 346-52. Game fishes of Santa Catalina, 338-45. Luminous fishes of the Banda Sea, 353-56.

FLOWERS

Sujuaro desert, 284-85. Yucca lily, 276-81.

INSECTS AND SPIDERS

Beetle, Japanese, 130; lady, 132, 135. Butterfly, Baltimore, 128; cabbage, 129; monarch, 131; tiger swallowtail, 126. Cricket's ear, 239. Fly, harlequin larva, 227. Katydid, 233-38. Moth, yucca, 276, 281. Spiders as fishermen and hunters, 262-74. Wasps, *Vespa*, 82; *Polistes*, 83-85.

LOWER INVERTEBRATES

Animals of the seashore, (duotone insert) opp. 240.
 Ascidians, 241-49. Coral polyps and their work,
 250-60. Marine animals (color plate) opp. 211.
 Rotifers, 212-23, 230; group, 224-32.

MAMMALS

African big game, (duotone insert) opp. 578. Antelope,
 sable, 624. Bat, 560-70. Beaver, work of, 594-
 600. Bear, grizzly, 589, 590, 592. Camels, 602,
 615. Caribou, Osborn, 628. Cat, 144-55. Dogs,
 58-63. Elephants, African, 18; cover for Nov.-
 Dec.; duotone insert opp. 578; Indian, 18. Fox,
 94-95. Hartebeest, 612. Lion, Abyssinian, 612.
 Marmot, 170-73. Marsupial, Australian, 618.
 Platypus, 621. Ringtail, 586. Skunk, 583-84.

MAN

Algonquin, 87-89. *Australopithecus*, 410-18. Bush-
 man, 417. Chira, 438. Chocoi, 337. Fiji dancers,
 492. Hopi, 178-83. Kitikshan, 33-48. Labrador
 Indians, 58-63. Makere, 464. Mangbetu, 461-62.
 Navajo, 50-52. Olympic Peninsula whalers, 24-
 32. Peru natives, 496. *Pithecanthropus*, 415,
 544-59.

MINERALS

Mimicry of, 157-61.

PORTRAITS

Bird Department staff, 498. Burns, E. J., 135. Jansen,
 A. A., 135. Mueller, H. and father, 228. Pasteur,
 Louis, 310. Sullivan, Louis R., 419. Wetmore,
 Alexander, 516.

REPTILES AND AMPHIBIANS

Alligator, 400-06. Frogs, cooing, 332; nurseries, 332-
 35; lagoon-building, 329; tree, 328. Hall of
 Reptile and Amphibian Life, (duotone insert) opp.
 384. Lizards: Iguanas, 390-93; duotone insert opp.
 384, chameleon, 393; horned, 286. Salamanders:
 arboreal, 383; red, 382-88; newts, 381. Snakes:
 anaconda, 394-99; rattlesnake, 287; two-headed,
 184, 186. Toads: giant, 324; midwife, 384;
 Surinam, 383.

TREES

Climbing, method of, 468. Cook Forest, 90-93.
Euphorbia, 610. New Jersey, 450, 454, 457.
 Louisiana swamp, 402-03.